



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/772,280	01/29/2001	Yves Fouillet	G-069US02CIP	9257

23557 7590 08/20/2003

SALIWANCHIK LLOYD & SALIWANCHIK
A PROFESSIONAL ASSOCIATION
2421 N.W. 41ST STREET
SUITE A-1
GAINESVILLE, FL 326066669

EXAMINER

TUNG, JOYCE

ART UNIT	PAPER NUMBER
----------	--------------

1637

DATE MAILED: 08/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/772,280

Applicant(s)
Fouillet et al.

Examiner
Joyce Tung

Art Unit
1637



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Jun 26, 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-23, 25-32, 50, and 51 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-23, 25-32, 50, and 51 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other:

Art Unit: 1637

DETAILED ACTION

The amendment filed 6/26/2003 has been entered. Following the entry of the amendment, claims 9-23, 25-32 and 51-52 are pending.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 9-23, 25-32, and 51-52 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- a. Claims 9-23, 25-32 and 51-52 are vague and indefinite because it is unclear what is the difference between the phrases "mobile sample transport member" and "thermal transfer member". Clarification is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 1637

4. Claims 9-22, 25-32 and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bach et al. (6,413,780).

Bach et al. disclose a method of performing a determination of an item of interest in a sample using a single structure (See the Abstract). The structure will be used for DNA/RNA sample preparation and amplification (See column 4, lines 1-13). A transport system, such as a conveyor or a carousel is used in streamline connected with multiple structures 1a. A relatively large number such as 100, could be operatively connected together (See column 7, lines 29-41). A sample is transferred to a first container in a first process path on the single structure and from the first container, the sample is transferred to a second container in a second process path on the single structure (See column 2, lines 4-12). The first process path 11 includes at least one temperature controller or heater to keep the first process path 11 at a desired temperature, for example 37 degrees Celsius and another portion of the first process path may be maintained at another temperature, for example, 70 degrees Celsius (See column 7, lines 60-67 to column 8, lines 1-2). A thermal regulation device (heating and/ or cooling) is provided with the base 2 (See column 6, lines 13-24). The thermal cycling protocol is provided including the temperature needed for polymerase chain reaction (See column 22, lines 41-67).

Bach et al. do not disclose that the protocol is carried out in an atmosphere sufficiently humid to reduce or prevent evaporation of the liquid sample volumes.

Although Bach et al. do not explicitly disclose that the protocol is carried out in an atmosphere sufficiently humid to reduce or prevent evaporation of the liquid sample volumes,

Art Unit: 1637

however, the evaporation of the liquid sample volumes is reduced or prevented in a humid atmosphere. It was common knowledge in the art at the time of the instant invention.

One of ordinary skill in the art at the time of the instant invention would have been motivated to apply the method of Bach et al. for carrying out a chemical or biochemical protocol because the method of Bach performs approximately 100 or more determinations of items of interest in a sample in an hour (See column 4, lines 1-7). It would be prima facie obvious to carry out the method for a chemical or biochemical protocol by applying the method of Bach et al.

5. Claims 23 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bach et al. (6,413,780) as applied to claims 9-22, 25-32 and 51 above, and further in view of Burns et al. (6,271,021).

The teachings of Bach et al. are set forth in section 4 above. Bach et al. do not disclose that sample receiving regions are covered by a non-miscible liquid in order to prevent evaporation of the liquid sample volume.

Burns et al. disclose microscale devices for polymerase chain reaction. On the planar device, the PCR reaction mixture is covered with mineral oil to prevent evaporation (See column 19, lines 32-38).

One of ordinary skill in the art at the time of the instant invention would have been motivated to apply the mineral oil as taught by Burns et al. to cover the sample receiving regions to prevent evaporation of the liquid sample volume in the method of Bach et al. because of the benefit of using the mineral oil in PCR reaction. It would have been prima facie obvious to carry

Art Unit: 1637

out a chemical or biochemical protocol by applying the method of Bach et al. and in view of the method of Burns et al..

6. U.S. patent NO. 5176203 is made of record as reference of interest because Larzul discloses an apparatus for repeated automatic execution of a thermal cycle in which means are provided to move the sample between different positions along the pathway and to heat or cool the sample as a function of its position withing the pathway (See the Abstract). Larzul does not disclose that a plurality of sample is applied to the apparatus.

Summary

7. No claims are allowable.

8. Any inquiries concerning this communication or earlier communications from the examiner should be directed to Joyce Tung whose telephone number is (703) 305-7112. The examiner can normally be reached on Monday-Friday from 8:00 AM-4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Benzion can be reached at (703) 308-1119 on Monday-Friday from 10:00 AM-6:00 PM.

Any inquiries of a general nature or relating to the status of this application should be directed to the Chemical/Matrix receptionist whose telephone number is (703) 308-0196.

9. Papers related to this application may be submitted to Group 1600 by facsimile transmission. Papers should be faxed to Art Unit 1637 via the PTO Fax Center located in Crystal

Application/Control Number: 09/772,280

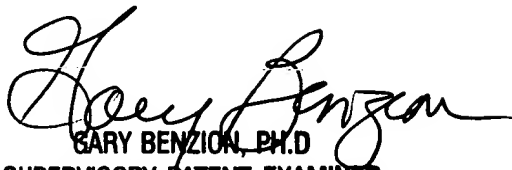
Page 6

Art Unit: 1637

Mall 1 using (703) 305-3014 or 308-4242. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989).

Joyce Tung

August 5, 2003


GARY BENZION, PH.D
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600